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Impact of Covid-19 on Indian Higher Education

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Abstract

The worldwide pandemic due to the new coronavirus Covid-19 is playing a vital role in higher education systems. Some of the important affects are disturbing the completion of the terminal exam, completing the syllabus, starting of the new academic year and loss of jobs. The Covid-19 pandemic motivates the education institutions and stakeholders for remote learning as well as it makes a new challenge in global economies. This article focuses the challenges on higher education in the era of Covid-19 pandemic as well as some solutions to continue the higher education. Particularly, this aims to describe the impact of higher education in India due to Covid-19 and it suggests the ways to move on goals of Indian higher education system. Based on the detailed study it suggests that to continue smooth online learning system in India, low-cost internet facility may be provided to all citizens. Further, by providing and awareness and training on online teaching learning sources for both students and faculty may provide possible situations to create a world class education system even in the post Covid-19.

Keywords: E-learning, Internet, Online Tools, Virtual Modality, Social Media

1. Introduction

Due to Covid-19 both students and teachers are impacted. The students have been impacted by losing face-to-face learning at higher educational organizations (HEOs) [1] Students who are waiting to start their higher education are also getting difficult in selecting the dream institutions [2] . The teachers have been affected significantly by losing their continuity in conventional teaching activity and they have been forced to adopt virtual modality [1] . Especially, in developing countries the improving and young institutions are being faced difficulty in maintaining their financial status due to the overall effect of Covid-19 in the normal life of every lay man's business. In India, many private educational organizations had decided to collect less fees [2] .The COVID-19 may possibly create a severe blow on the professions of this academic years' graduates. Also, the senior students

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are experiencing foremost disruptions in learning and evaluation in the closing portion of their college educations and the young graduates would face heavy challenge on job market due to global recession [3].

In the end of March 2020, the University Grants Commission (UGC) of India had asked all higher education organizations and universities to extend the date of final semester examinations as well as intermediate semester examinations [4]. Anna University Chennai [5] has conducted the final semester examination by online during the end of September 2020. Madras university had allowed students to select either online or offline mode for the end semester examinations which was held in September 2020 [6]. Some other universities like Jawaharlal Nehru Technological University Hyderabad (JNTUH) [7] have conducted offline examinations with necessary precautions. In other states of the country also, all kind of university examinations and other recruitment examinations had postponed during March 2020 [8]. Delhi university conducts several examinations from September 2020 to November 2020 [9]. So, across the country almost all young graduates are waiting to enter a better career.

In India, around 1000 universities and around 40,000 colleges are moving to conduct classes through online [10]. According to union health ministry (UHM) around 1,03,569 people died due to Covid-19 in India as of 5th October 2020 and around 66,85,082 people are affected by Covid-19 [11]. Figure 1 illustrates that India is one of the mostly affected country in the world [12]. Figure 2 shows the state wise effect of Covid-19 as of October 2020. Further, Figure 3 demonstrate that daily new cases of Covid-19 as of October 2020. On 5th October 2020, it is recorded that the one-day Covid-19 cases are 61,266 and 884 people died on that day only [13]. However, with the motive of delivering quality education and with the aim of maintaining the standard of higher education, the department of higher education (DHE) India has decided to reopen institutions from 15th October 2020 for the researchers and graduate students to do laboratory experiments [14] with the recommendation of online learning.

In the process of online learning and teaching, some of the faculty have faced problems in using social media to provide the lessons clearly to their students. They also must adopt new procedures for evaluating the outcome of online education. Due to unavailability of proper internet connections especially in villages some students also have affected on their dream learning and this will also affect their grade point averages (GPAs). Covid-19 also has affected the worldwide transportation. This also will affect the international admissions in higher educations. So, the effect of Covid-19 will create a difficult situation for entering a dream career and it will create anxiety and uncertainty among young students and graduates [3].

The remaining portion of this article is built as follows. Section II describes the effects of Covid-19 in India. Section III briefs the effects of Covid-19 in Indian higher education systems. Section III suggests the possible solution to maintain the quality in higher education and section IV concludes the study.

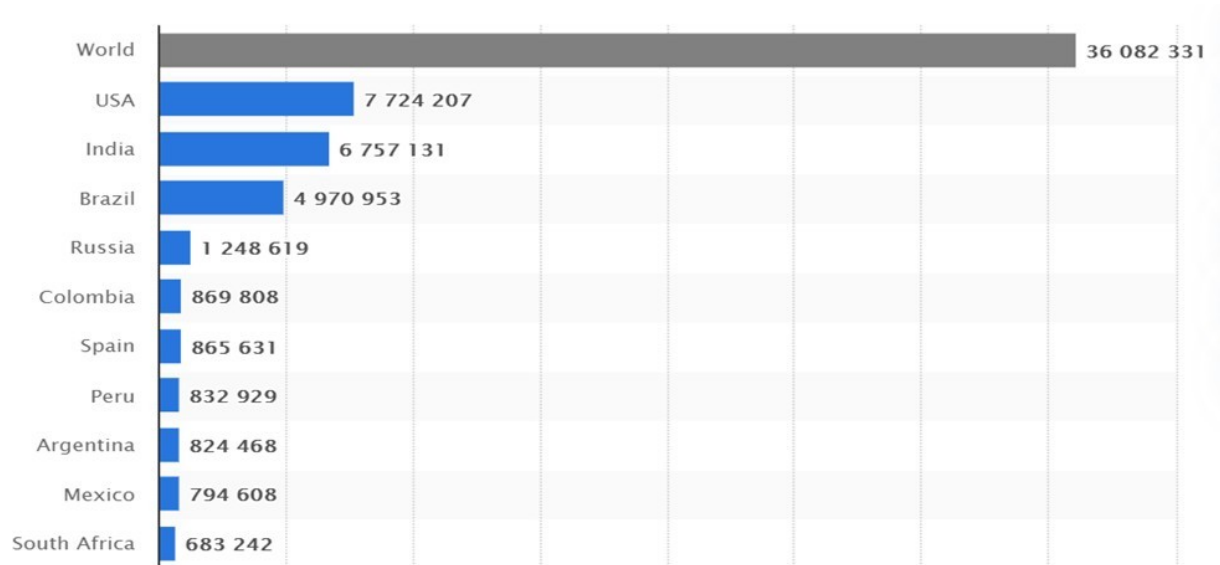


Figure 1: Mostly Effected Countries by Covid-19 in the World [12]

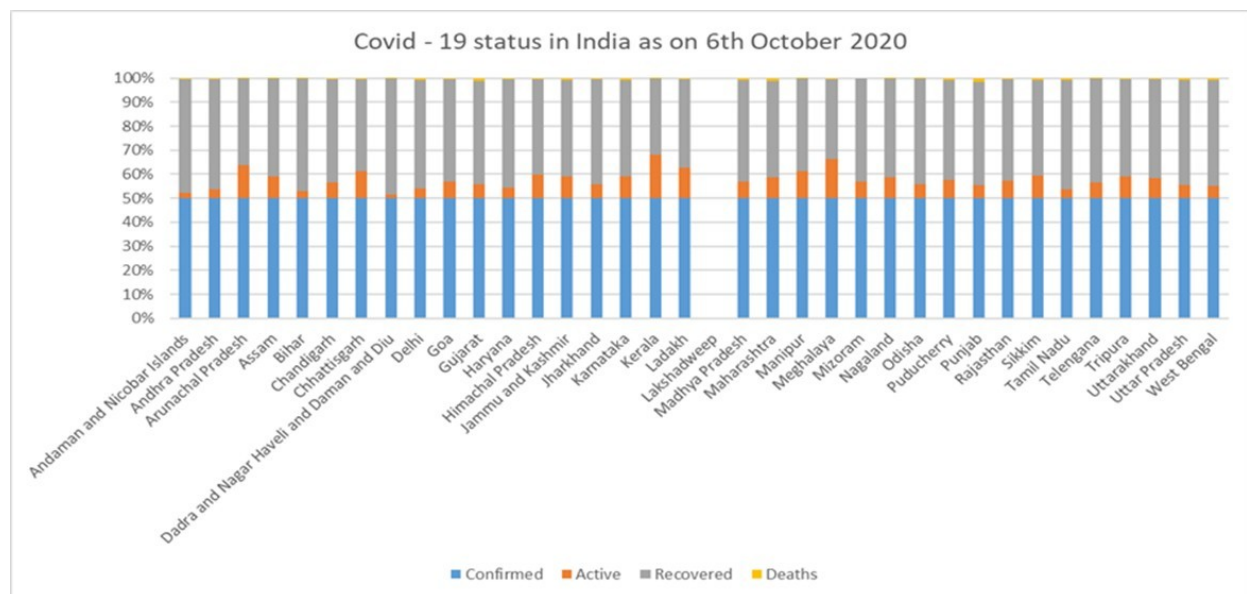


Figure 2: State Wise Effect of Covid-19 as of October 2020 in India Source: Ministry of health and family welfare India [15]

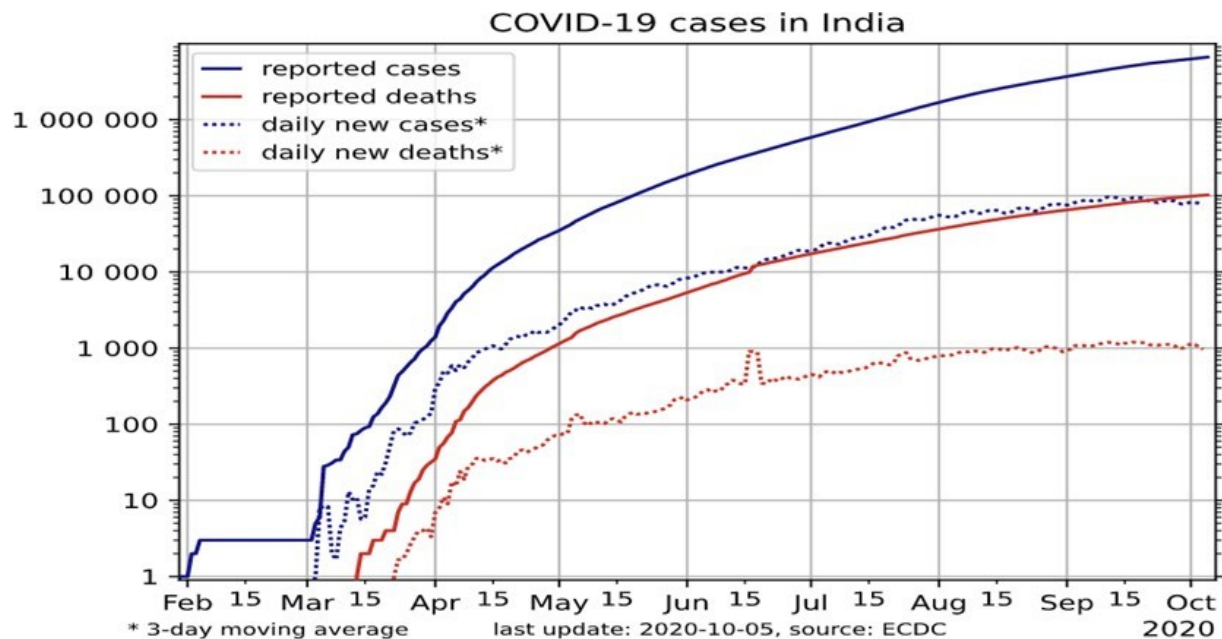


Figure 3: Daily New Cases and Deaths Due to Covid-19 in India [16]

2. Effects Of Covid-19 On Higher Education In India

The various pillars of higher education and research are networks, resources, public health, and social policies as well as multidisciplinary research. The effect of Covid-19 on these pillars will be felt for several years to come. Providing protection and strength for higher education and research during coronavirus pandemic Covid-19 will need efforts by different academic communities, funders, and governments [17]. Covid-19 has created several negative impacts on higher education such as reducing the efforts on international education, passive learning, unprepared teachers for virtual class and altering structure of student enrolment. At the same time, the Covid-19 has also created some positive impacts on higher education such as blended learning, providing new and strengthening the learning management systems (LMSs), improving the quality of study materials, and collaborative teaching [18]. Figure 4 and Figure 5 shows educational institutions closed due to Covid -19 worldwide as on 5th October 2020 and institutions closed across India respectively [19].

3. Opportunities To Continue Learning And Teaching

After the Covid-19, higher education system majorly moved to conduct classes and examinations through e-learning and digital technology, respectively. E-learning encourages teaching and learning remotely, and it can improve the retention of knowledge with less time. The global investment for e-learning during the year 2019 was US\$18.66 billion and it is forecasted that around US\$350 billion would be required for virtual learning tools by 2025. After the Covid-19, different education technology companies have developed various

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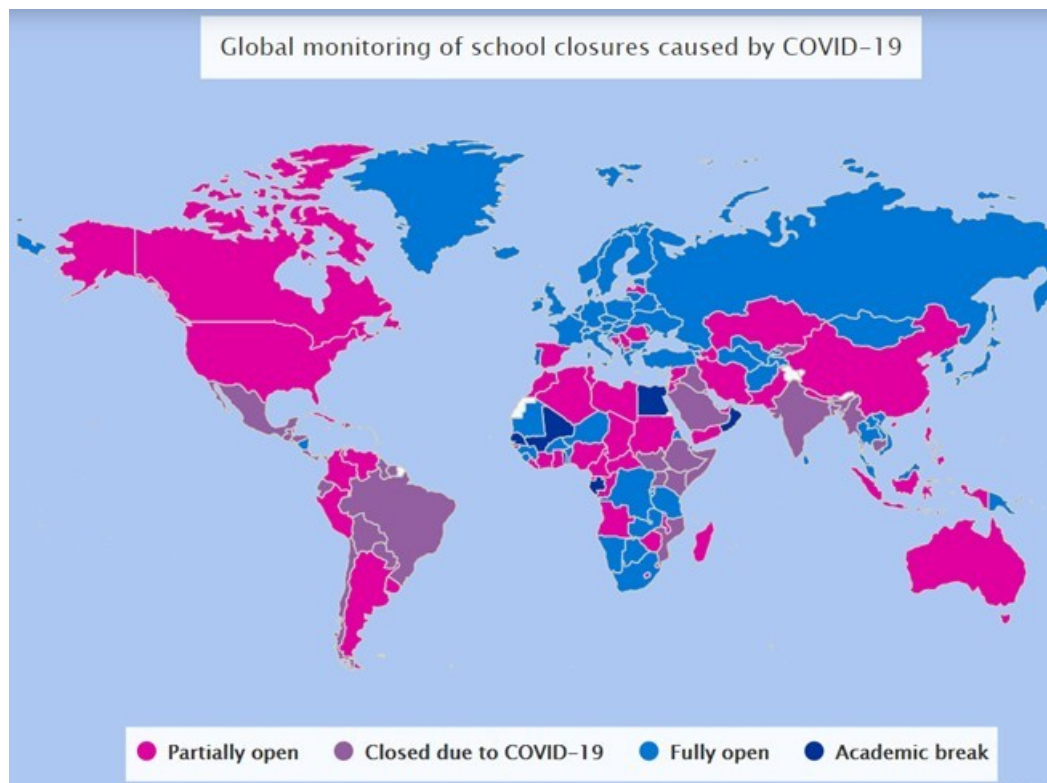


Figure 4: Worldwide Schools Closed due to Covid-19 as on 5th October 2020 [Source: UNESCO] [19]

platforms for virtual learning like Bangalore-based Byju's, Tancent, Lark and DingTalk, etc. [20]. Some higher education organizations (HEOs) have introduced their own private channels for virtual learning. Most of the faculty members have started their own YouTube channels for providing study materials with detailed explanation to their students. Some studies describe that the e-learning technology provides 25 % to 60 % more materials by comparing with the conventional classroom learning as well as reduces 40 % to 60 % of time [20]. Many companies like Coursera and Great Learning academy have offered e-learning resources with free-of-cost during the Covid-19 lockdown. So, the Covid-19 pandemic has reshaped the teaching and learning process [21]. It encourages the use of different digital resources, digital learning management systems (DLMS), mobile phone applications, offline functionality[9]systems, massive open online course (MOOC) platforms, self-directed learning contents, collaborative platforms for live-video conference, tools for creation digital learning contents, and other digital learning solutions listed out by UNESCO [22]. Further, Students in HEOs face a huge challenge of establishing for their career improvement [23]. Recently, government of India has introduced 'PM eVidya Programme' which offers online degrees from the month of May 2020 and it is recommended by national institute of ranking framework (NIRF) [9]. During the Covid-19 pandemic and due to the lockdown in the higher education sectors and other industries, the growth of product of online resources like Cisco webex and Zoom is increasing rapidly as shown in Figure 6. Figure 7 demonstrate that the usage of different web conferencing tools during the lockdown

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period [24] .

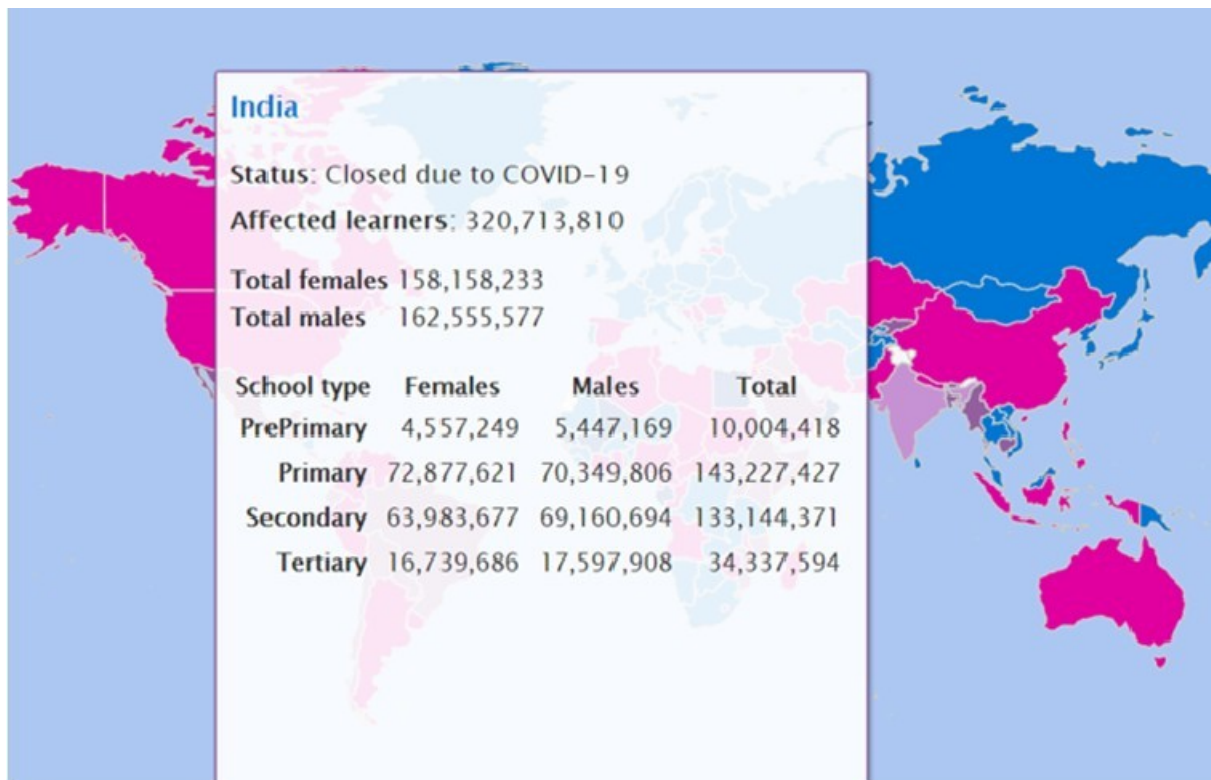


Figure 5: Schools Closed Across India due to Covid-19 as on 5th October 2020 [Source: UNESCO] [19]

4. Challenges On E-Learning And Solutions

The e-learning technique has several limitations such as lack of knowledge of tutors on using e-learning tools and limited bandwidth. Importantly many students without having internet facility struggling a lot to attend e-learning [20] . E-learning depends on the accessibility and convenience of machinery, but slightly or no accessibility of electrical energy is a substantial challenge to getting benefit of learning online. Figure 8 and Figure 9 demonstrates that only 38 % of Indian citizens use internet facility and only 31 % of Indians utilize social media respectively according to Pew research as on 2nd April 2020 [25] . Based on the recent survey performed by ministry of rural development (MRD) India in 2017-18, it is identified that just 47% of households in India obtain over 12-hours of electrical energy and over 36% of educational institutions in India function without electrical energy. Another survey performed by national sample survey office (NSSO) during 2017-18 indicates that only 15% of Indian rural households could access internet but in Indian urban households it is 42%. Figure 10 shows the regional disparity in the usage of computer and internet facility between the rural India and urban [26] . Students with debilities are highly disturbed as they need specialized assistance and education kits that are non-always accessible in distance education [27] . New graduates are struggling to join in the desired corporate because of

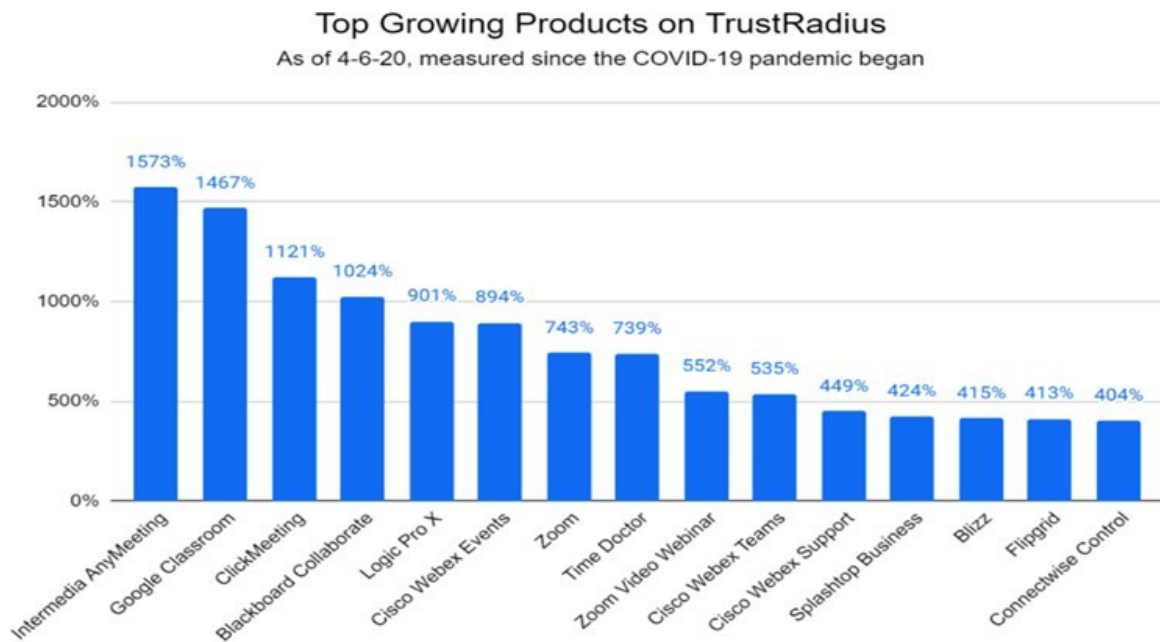


Figure 6: Growth of Online Resources During Covid-19 Pandemic [24]

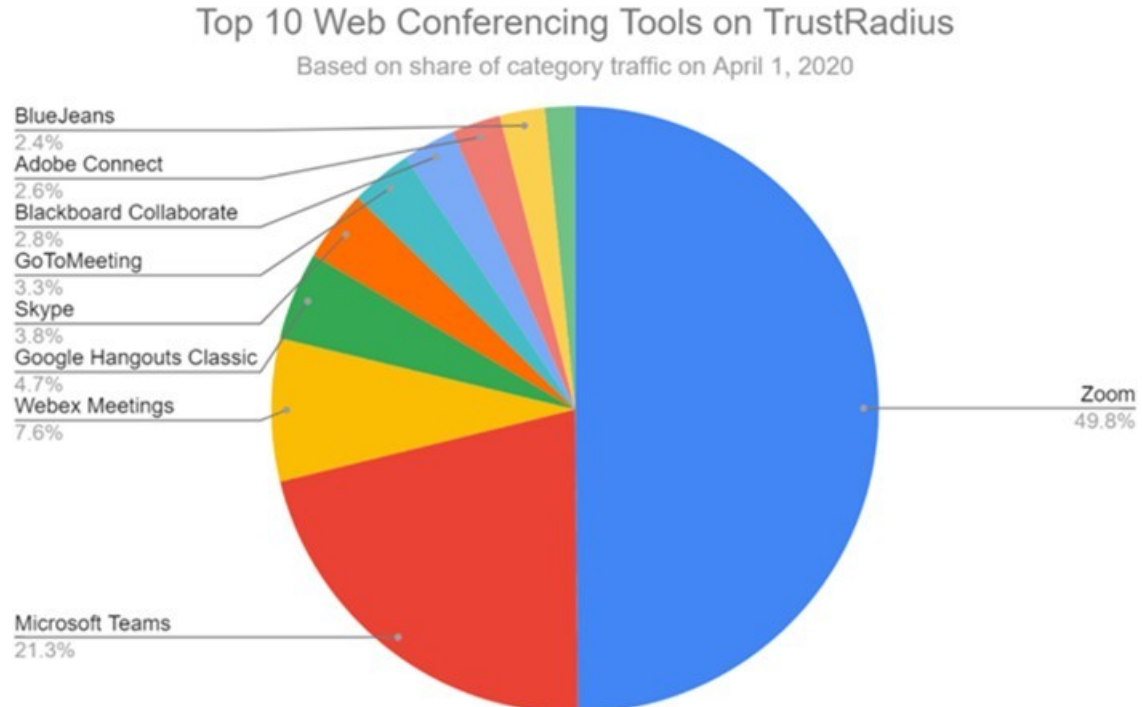


Figure 7: Usage of Web Conferencing Tools During Covid-19 Lockdown [24]

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the fear about the Covid-19 pandemic [28] . The same situation is also there in choosing universities or colleges for further higher education. Also, recently passed out students are struggling to continue their career due to the delay in completing regular and arrear examinations as well as a delay in getting degree certificates. So, this pandemic situation would increase the unemployment in the country.

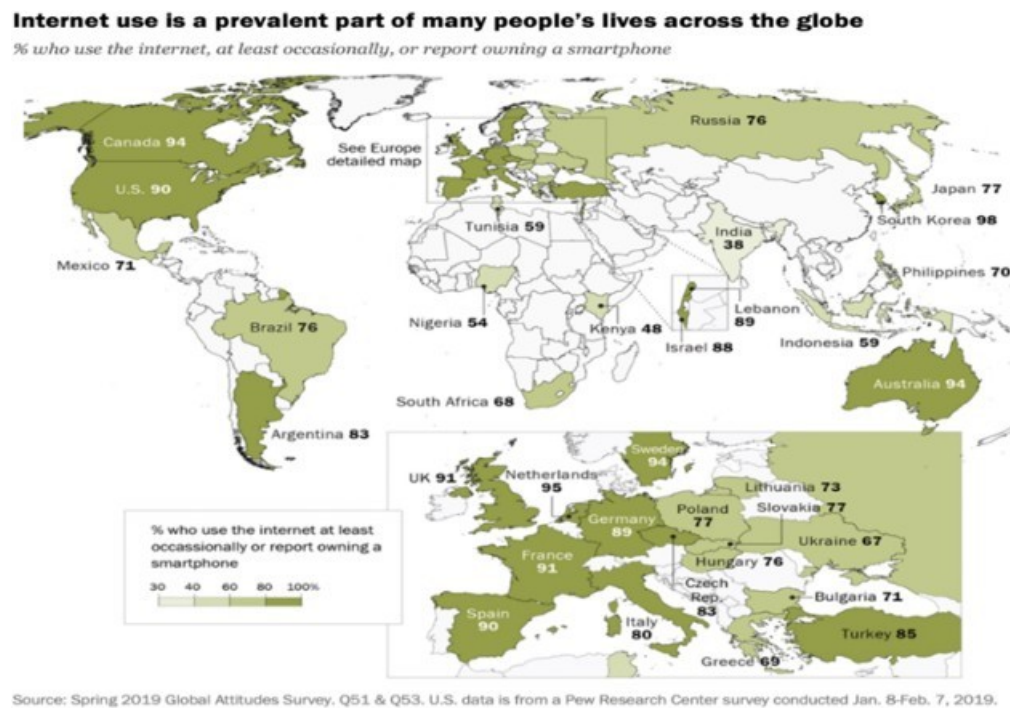


Figure 8: Only 38% of Indian Citizens use Internet facility as on 2nd April 2020 [19]

To continue e-learning scheme during the Covid-19 pandemic as well as to provide a good e-learning experience in post Covi-19, the government should provide good internet facility to the citizens especially for village people. Also, the higher educational institutions must move to efficient online classes from the emergency e-learning by providing proper training to both faculty and students. To provide internet accessibility in remote villages, internet connections may be provided from urban areas or from other areas which are having good internet connectivity and accessibility. Further, to improve the quality of higher education through online education in India, some collaborative actions should also take place between two or more higher educational institutions [29].

5. Conclusion

This article illustrates the status of Covid -19 around the Globe especially in India state wise. Also demonstrate the difficulties faced by young graduates and students in the higher education sector due the continuous lockdown of educational institutions and the spreading of coronavirus largely across the country. Based on the detailed study it identifies the

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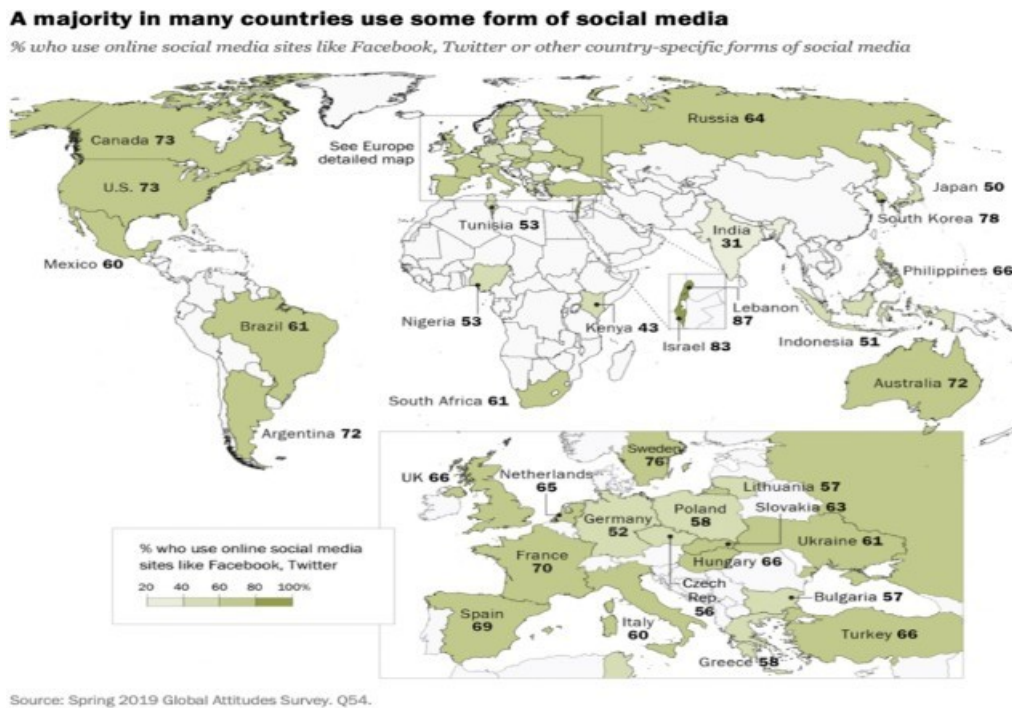
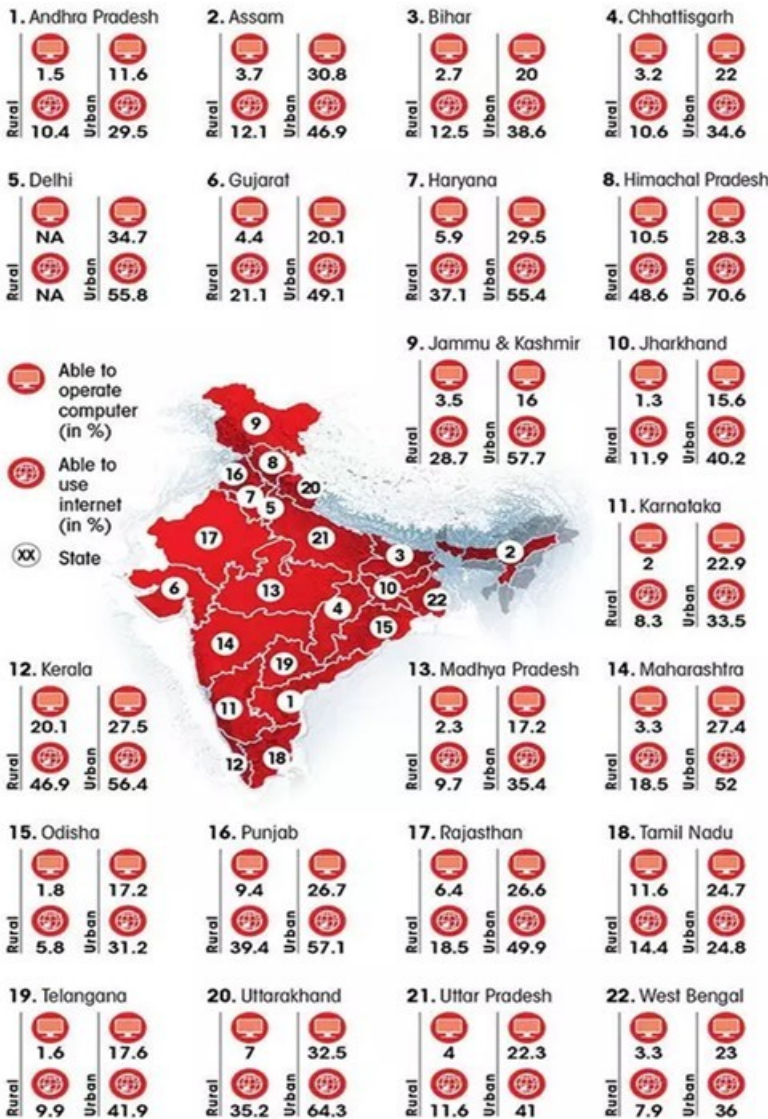


Figure 9: Only 31% of Indian Citizens Utilize Social Media as on 2nd April 2020 [19]

different opportunities to continue the teaching learning process particularly by using open source learning management system is mostly used by different universities and colleges to carry out the tutorial as well as evaluation purpose. However, in India, due to the lack of computers and internet facility especially village citizens face problems in continuing their educations satisfactorily in the era of Covid-19. Many surveys show that even electricity facility is not completely available in many villages of India for all household applications. So, this article recommends providing proper internet access to all citizens of India to carry out the higher education successfully. Further, it suggests that to implement successful learning, teaching and evaluation, the universities must provide sufficient training to the stakeholders. Also, to avoid in delay of providing degree certificates, universities may take timely decision to conduct all arrear examinations. It will be very much useful for the young graduates to avoid their fear about the future career. So, with the proper decision, training, and motivation on conducting courses either by online and offline the higher education institutions can make the graduates globally competitive during the Covid-19 pandemic and even post-Covid-19 era. Furthermore, many statistics show the spreading of corona virus is not completely under the control, so it is advised that with the proper precautions the universities may continue their journey on the new revolution of education which is triggered by Covid -19 with the support of human and machine.

Regional disparity

There is significant difference among states in their ability to access internet and operate computers



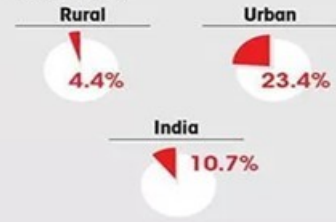
GRAPHIC: SANJIT / CSE

Source: 75th Round of National Sample Survey conducted between July 2017 and June 2018

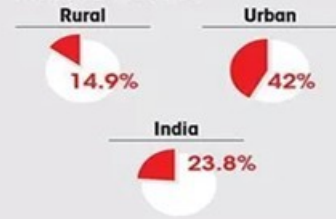
Network strength

Urban and rural India greatly differ in access to internet and computers

HOUSEHOLDS THAT OWN COMPUTER



HOUSEHOLDS WITH INTERNET FACILITY



PERSONS OF AGE 5 YEARS AND ABOVE WHO:

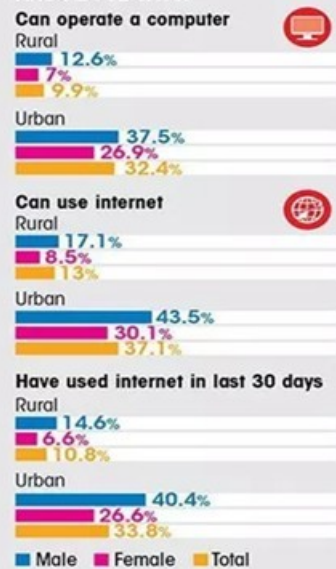


Figure 10: Regional Disparity in the Usage of Computer and Internet Facility [26]

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